

IN THE CLAIMS

Please replace the claims now on file with the following claims.

1-215. (Canceled)

216. (Currently Amended) A diffractive multifocal intraocular lens comprising:
a first ~~refractive~~ surface ~~[[;]]~~ and a second ~~refractive~~ surface, said second surface
opposing said first surface, said second surface having a second shape;
wherein said first surface includes a diffractive pattern on at least one of said first
refractive surface and said second refractive surface imposed on a first shape;
wherein ~~said first refractive surface, said second refractive surface, and said diffractive~~
~~pattern~~ said first surface and said second surface result in a base focus and an additional focus;
and
wherein at least one of said first ~~refractive surface~~ shape and said second ~~refractive~~
~~surface~~ shape has an aspheric component ~~to its shape~~.

217. (Previously Presented) The lens of claim 216 wherein said aspheric component is a prolate shape.

218. (Previously Presented) The lens of claim 216 wherein said aspheric component reduces spherical aberration of a wavefront that passes through said lens.

219. (Previously Presented) The lens of claim 218 wherein, when said wavefront is represented as a series of Zernike polynomials, a Zernike Z11 term describing said wavefront is reduced when said wavefront passes through said lens.

220. (Previously Presented) The lens of claim 219 wherein said series of Zernike polynomials comprises up to at least fourth order terms.

221. (Previously Presented) The lens of claim 216 wherein said lens comprises at least one of a silicone, a hydrogel, and an acrylate.

222. (Currently amended) The lens of claim 216 wherein the same ~~refractive~~ surface defines both said aspheric component and said diffractive pattern.

223. (Previously Presented) The lens of claim 216 wherein an add power for said additional focus is between 2 and 6 diopters.

224. (Previously Presented) The lens of claim 216 wherein an add power for said additional focus is 3 to 4 diopters.

225. (Previously Presented) The lens of claim 216 wherein a light distribution

between said base focus and said additional focus is between 70%:30% to 30%:70%.

226. (Previously Presented) The lens of claim 216 wherein a light distribution between said base focus and said additional focus is 50%:50%.

227. (New) The lens of claim 216, wherein one of said first shape and said second shape is spherical.

228. (New) The lens of claim 216 wherein said lens is designed to reduce wavefront aberrations of light passing into the eye when said lens has replaced a natural lens of an eye.

229. (New) The lens of claim 216 having a base power of 18 diopters.

230. (New) The lens of claim 216 having a diameter of 6 millimeters.

231. (New) The lens of claim 216 having a thickness of 1.1 millimeters.

232. (New) The lens of claim 216 wherein the first and second surfaces have radii of curvature between 12 and 13 millimeters.

233. (New) The lense of claim 216, wherein said lens is designed to replace a natural lens of an eye.